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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,547	10/06/2003	Mark Slamowitz	13386US02	3292

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EXAMINER	
NGUYEN, TAN	

ART UNIT	PAPER NUMBER
2818	

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/679,547	SLAMOWITZ ET AL.	
	Examiner	Art Unit	
	Tan T. Nguyen	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The Preliminary amendment filed by Applicants on October 6, 2003 has been received and entered.

2. Claims 1-22 have been canceled.

New claims 23-36 have been added.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 23-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 22-23 and 2-11 of U.S. Patent No. 6,639,866. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 22 and 23 of U.S Patent No. 6,639,866 recite method for improving speed an increasing performance in a multi-port register file memory comprising steps of differentially sensing a small voltage swing using a two stage analog style sense amplifier including at least one trip-level-shifted inverter device as claimed in claim 28 of the present application, and method for reading data stored in a multi-port register file memory having steps of flowing current through at least one

transistor of at least one memory cell, causing an output of a sense amplifier having at least one trip-level-shifted inverter device and being connected to the least one memory cell, to switch accessed data to full CMOS logic levels as claimed in claim 23 of the present application.

Regarding claims 26 and 29, claim 2 of U.S. Patent No. 6,639,866 recites the register file memory operates asynchronously.

Regarding claims 27 and 30, claim 3 of U.S. Patent No. 6,639,866 recites the register file memory operates synchronously.

Regarding claim 31, claim 4 of U.S. Patent No. 6,639,866 recites the voltage swing is at least a portion of the total supply voltage.

Regarding claim 32, claim 5 of U.S. Patent No. 6,639,866 recited the small voltage swing is about 100 millivolts.

Regarding claim 33, claim 6 of U.S. Patent No. 6,639,866 recites the small voltage swing is defined relative to a top rail of a voltage supply.

Regarding claim 34, claim 8 of U.S Patent No. 6,639,866 recites the two-stage analog style sense amplifier includes at least one amplifier enhancing device.

Regarding claim 35, claim 10 of U.S. Patent No. 6,639,866 recites at least one power switch is used to turn off power to said two stage analog style sense amplifier.

Regarding claim 36, claim 11 of U.S. Patent no. 6,639,866 recites the two-stage analog style sense amplifier includes a voltage reference device.

Regarding claims 24-25, it is old and well known in the art that current sense amplifier is used to detect current flowing through transistor of a memory cell.

It would have been obvious to a person of ordinary skill in the art to modify the method of reading data in claim 23 of U.S. Patent No. 6,639,866 by providing the step of sensing the current and converted the sensed current to voltage.

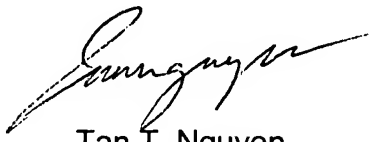
The rationale is as follows: A person of ordinary skill in the art would have been motivated to detect the current flowing through the memory cell and convert the detected current into voltage to perform precise data reading operation.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan T. Nguyen whose telephone number is (571) 272-1789. The examiner can normally be reached on Monday to Friday from 07:00 AM to 03:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms, can be reached at (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tan T. Nguyen
Primary Examiner
Art Unit 2818
March 04, 2004